

科目ナンバリング		U-LAS14 20020 LE68							
授業科目名 <英訳>		Comparative Cognition-E2 Comparative Cognition-E2				担当者所属 職名・氏名		野生動物研究センター 准教授 Andrew MacIntosh	
群	自然科学科目群			分野(分類)	生物学(各論)			使用言語	英語
旧群	B群	単位数	2単位	週コマ数	1コマ	授業形態	講義（対面授業科目）		
開講年度・ 開講期	2024・前期		曜時限	月3		配当学年	全回生	対象学生	理系向
【授業の概要・目的】									
Comparative cognition offers a ride through the mental capacities of animals as simple as the humble bumblebee and as complex as our own closest relative, the chimpanzee. In our quest to understand the origins of the human mind, we cannot forget that like all organisms on earth, we are but a small part of the great evolutionary tree of life. In this course, students learn about animal cognition through the lens of behavior, ecology and evolution. Students learn about how and why animals use cognition to help them navigate their physical and social worlds, and how and why they learn and remember things about their environments. The course has a strong emphasis on evolutionary theory, as well as the cognitive experiments that have allowed scientists to discover what we now know today about the animal mind.									
【到達目標】									
In this course, students will learn to: - apply the scientific method to questions about cognition and behavior - distinguish between evidence-based statements about what animals are thinking and anthropomorphic descriptions - appreciate that human cognition is the product of a long evolutionary process, just as it is in all other species - understand that cognition has both general (connected) and modular components that help animals solve the problems that are important to them									
【授業計画と内容】									
This course will be conducted in 5 parts, as described below. In principle, each topic within each part reflects one class, but the order and spacing of topics may be moved depending on the flow of the course or the occurrence of specific events related to the course material.									
Part 1 - the science of comparative cognition 1. introducing cognition, evolution and behavior 2. the comparative method and the evolution of the animal brain 3. evolutionary and ecological pressures driving cognition									
Part 2 - basic cognitive processes 4. sensing, perceiving and attending to the world 5-6. connecting the dots through learning & memory									
Part 3 - finding our way in the physical world 7. spatial cognition 8. telling time & counting 9. foraging, planning & using tools									
Part 4 - finding our way in the social world 11. communication & language									
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## Comparative Cognition-E2(2)

- 12. social cognition and social competence
- 13. social learning and animal culture

Part 5 - putting it all together

- 14. understanding ourselves, Darwin ' s ' degree not kind ' , ethics of cognitive knowledge

\*Note that this course is conducted using the flipped learning format, where students watch video lectures on demand (YouTube) before each class session, and then use class time to dive deeper into the course material. Be prepared to use class time for discussion, Q&A, and other content-related activities.

\*\*Note that there will be a midterm examination held during the 7th or 8th week of class, depending on course progress and suitability, as well as the final exam at the end. Details will be announced well in advance during class and via Panda/KULASIS.

### 【履修要件】

特になし

### 【成績評価の方法・観点】

course participation - 10% (attendance 5% and discussion 5%)  
course reports - 30% (3 separate 1-page reports on topics covered in class)  
midterm exam - 30% (first half of course content, written test)  
final exam - 30% (second half of course content, written test)

### 【教科書】

授業中に指示する

### 【参考書等】

( 参考書 )

Sara J. Shettleworth 『Cognition, Evolution, Behavior』 ( Oxford University Press, 2010 ) ISBN:978-0-19-531984-2 ( Recommended, not required. Material in textbook enhances learning. )  
Mary C. Olmstead, Valerie A. Kuhlmeier 『Comparative Cognition』 ( Cambridge University Press, 2015 ) ISBN:978-1-107-01116-8 ( Recommended, not required. Material in textbook enhances learning. )  
Clive D. L. Wynne, Monique A. R. Udell 『Animal Cognition: Evolution, Behavior & Cognition』 ( Red Glove Press, 2021 ) ISBN:978-1-137-61126-0 ( Recommended, not required. Material in textbook enhances learning. )

### 【授業外学修 ( 予習・復習 ) 等】

This course will use Kyoto University's online Learning Management System (LMS) Panda. Please get familiar with the system before starting the course. Lectures will be provided as on-demand videos (YouTube) and must be watched before each class session. There will also be other content shared during the course, including additional videos (YouTube) and readings (Panda) and ongoing asynchronous posting in the Discussion Forum (Panda). For the course reports, students are expected to conduct literature research and produce a written document, as well as review a small number of reports from fellow classmates as part of the assignment (Peer Review).

The course will follow the format of flipped education, in which lectures are viewed on-demand outside of class time, and class time is used for thinking, solving content-related problems, asking questions, engaging in discussions and doing other lecture-related activities.

## Comparative Cognition-E2(3)

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### 【その他（オフィスアワー等）】

There are no office hours for this course, but the instructor is always open to communicating digitally in whatever medium works best; email, online meetings, the chat room or discussion forums in PandaA, etc. In addition, appointments may be made before/after class if needed.